

FIG.
1



Title: ROOT SPECIFIC, AND STRESS-INDUCED
EXPRESSION OF TARGET ET AL.
Inventor: Allen G. GOOD
Application No.: 09/493,803

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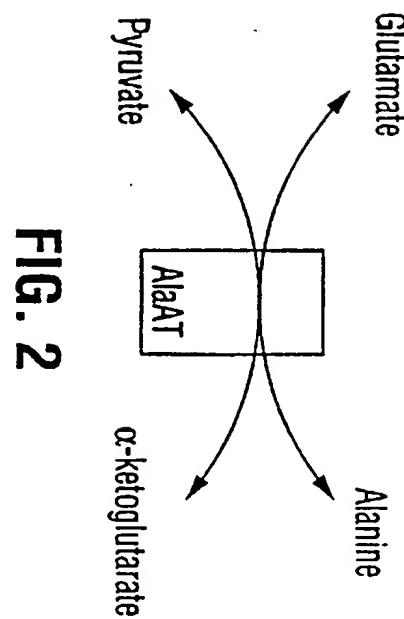


FIG. 2



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GTGGACCTGCAGGTCAACGGTAATGGGGTATCCCCGAAAACGTAGGACACGTG -250
ACAAAACTCAATGATCCGAGGTGAATCAAGCCAAAGGGATTGACACAACAGCTCAGCTTCGTT -180
CGGTCCAATCGGCTTCCAACTTTTACTTACAACTCGTACCGTCTCTCTCTCTCATC -110
ACTTCCTCTTAAAGACTCTCTGATCAAACGTATCGAAAACTCCATTCTTTGATACCATCATCGATAAA -40
TACTTAGAGGGTATTGATTCTTGATCCATTACTGTTCA
ATCATTTTTGTAGA
+1→ 31

FIG. 3

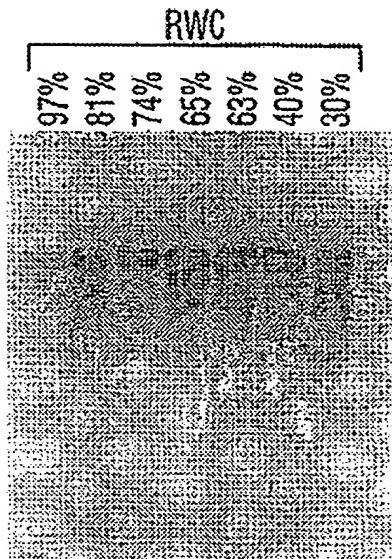


FIG. 4A

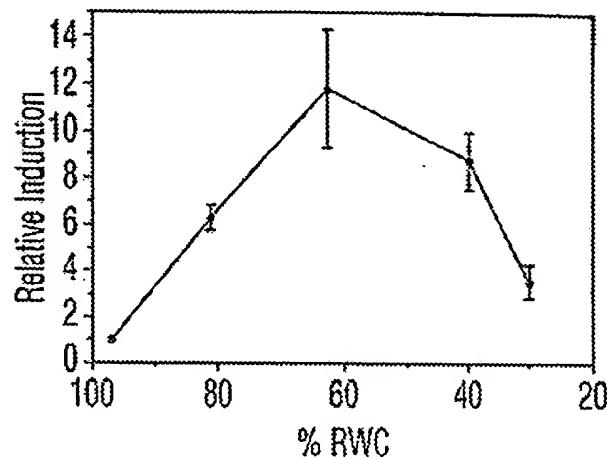


FIG. 4B

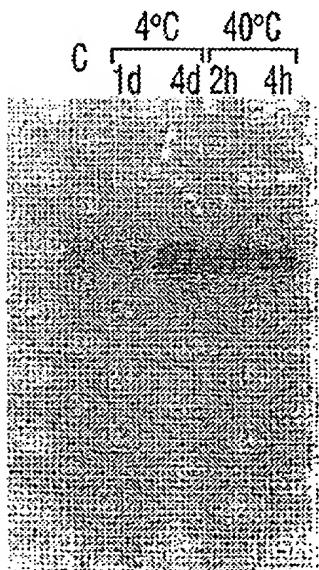


FIG. 4C

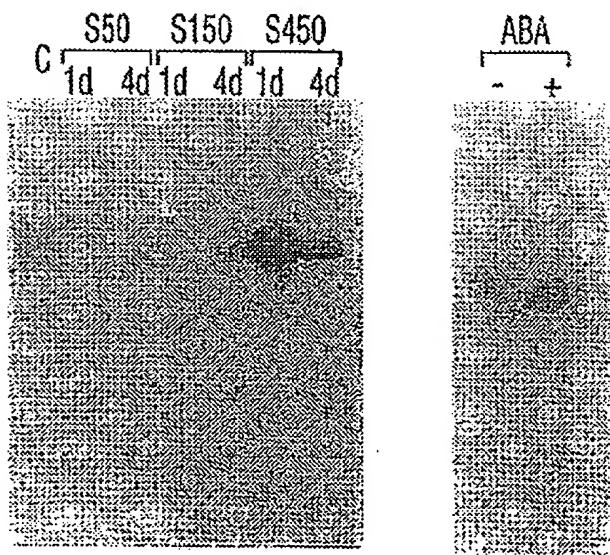


FIG. 4D

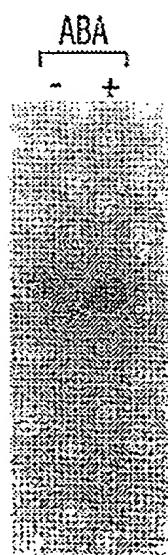


FIG. 4E



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GGCCACAAACCGCGGAAGAGATAAGACGGACAGCTAGAGCCCTCGGAAGATACTCGCTCTGCC	94
ATGGCTGCCACCGTGCCTGGACACCTGAAACCCCAAGGTTAAATGGAGATCTCTGAGATGGAGATGTCATCCATGCTCAGGCTTC	190
M A A T V A V D N L N P K V L K C E Y A V R G E I V I H A Q R L	32
CAGGACAGCTAAAGACTCACCCAGGCTCTACCTTTGATGAGATCCTATGTCATGGAAACCAATCTTGGCTCAGAACCGAGT	286
Q E Q L K T Q P G S L P F D E I L Y C N I G N P Q S L G Q Q P V	64
ACATTCTCAGGAGGTCTGCCTTGTGATCATCCAGACCTGTCAGAGAGGAAATCATGTCAGTGTGCTGATCTTCGA	382
T F F R E V L A L C D H P D L L Q R E E I K T L F S A D S I S R	96
GCAAGGAGATCTGCCATGATACTGGAGAGGACACGGACATAGCCAGGTTAAAGGACTCTGTGATGCAATTCTGG	478
A K Q I L A M I P G R A T G A Y S H S Q G I K G L R D A I A S G	128
ATCGCTTCAGGAGATGGATTCCCTGCTTAATGTGACATTTCACAGATGGAGCAAGTCTGGGTCACCTGATGCAATTGTATA	574
I A S R D G F P A N A D D I F L T D G A S P G V H L M M Q L L I	160
AGGAATGAGAAACATGGCATCTCTGCTCCAGTACCCCTGACTCGCTTCAGCTCTGATGCAATTGTATA	670
R N E K D G I L V P I P Q Y P L Y S A S I A L H G G A L V P Y Y	192
CTCAATGAAATCGACGGCTGGGGTTGAAACCTCTGATGTTAGAGGAACTGAGAGATGCTGGCTAGAGGCACTAACGTTAGGGCTTGGT	766
L N E S T G W G L E T S D V K K Q L E D A R S R G I N V R A L V	224
GTTATCAATCCAGGAATCCACCTGGACAGTACTCTGCTGAAGAAACCAATATGACATAGTGAACCTCTGCAAAATGAGGCTCTCTCTA	862
V I N P G N P T G Q V L A E E N Q Y D I V K F C K N E G L V L L	256
GCTGATGAGGTATAACCHAGAGAACATCTATGTCAGAGATAGTGAATCCTGGGATACGGCGAGGAGAT	958
A D E V Q E N I Y V D N K K F H S F K K I V R S L G Y G E E D	288

FIG. 5

CTCCCTCTAGTATCATATCAATCTGTTCTAAGGATATTATGGTACTGTGAGTACTGGCTTCAGTGCTCCA 1054
L P L V S Y Q S V S K G Y G E C G K R G G Y F E I T G F S A P 320
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USPTO
GTAAGAGGAGCATCTACAAATAGCATCTGGTGAACCTATGGCTCAATATCACTGGCCAGATCCTGCTAGCTTGCTCATGAAACCCACCAAGCT 1150
V R E Q I Y K I A S V N L C S N I T G Q I L A S L V M N P P K A 352
AGTGATGAATCATACGCTTCATACAAAGGAGAAATGGAACTCTCGCATCTTAGCTCGTGTGGGAAGGCAATTGGGATGCAATTAAA 1246
S D E S Y A S Y K A E K D G I L A S I L A R R A K A L E H A F N K 384
CTTGAGGGAATTACCTGCACCGAGGCTGAGGGAGCAATGTACGTTCCCTCAATCTGCTGCCACAGAAGGCAATTGGGCTAAAGCT 1342
L E G I T C N E A E G A M Y V F P Q I C L P Q K A I E A A K A A 416
AACAAAGCACCTGATGCCATTCTATGCTCTCTCGACTCGACTGGATCGTCGTGTCCTGGATCAGGATTGGCCAGGTTCTGGCACA 1438
N K A P D A F Y A L R L L E S T G I V V P G S G F G Q V P G T 448
TGGCACTTCAGGTGACGATCTTCCGAGGAGATAAGTCCGGCAGTCATCTGGCTTCAGGGTGTCCATGAGGGCTCATGTCAGAGTAT 1534
W H F R C T I L P Q E D K I P A V I S R F T V F H E A F M S E Y 480
CGTGACTAAACTGGGCAACATGGGATACATACAAACCTCTGGGTTTCGTAGGGCTCTGGTTGGCCCCCCCCCTCTCTC 1630
R D 482
TCTCTCTGACAGCATCCTCTAGATGAGACAAATAAGCAAGCCATGTCATCTAAAGAAA 1701

FIG.5 Cont'd



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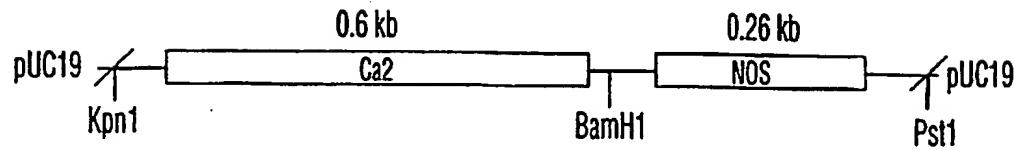


FIG. 6



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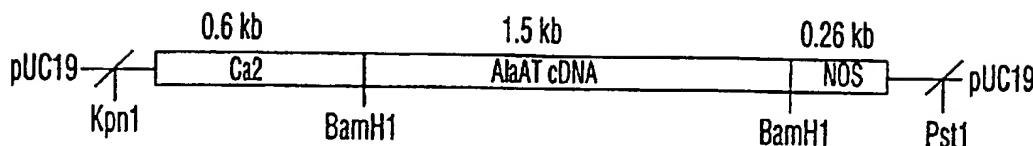


FIG. 7A

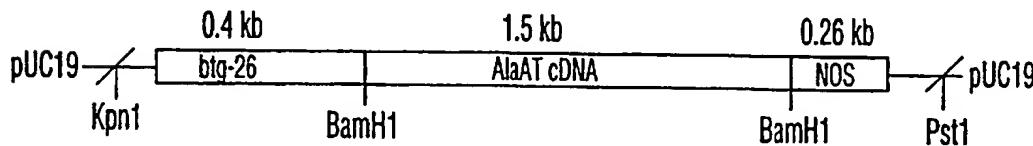


FIG. 7B

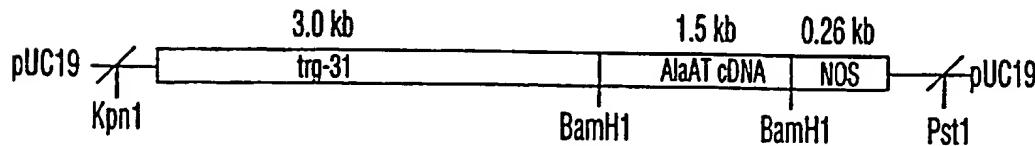


FIG. 7C

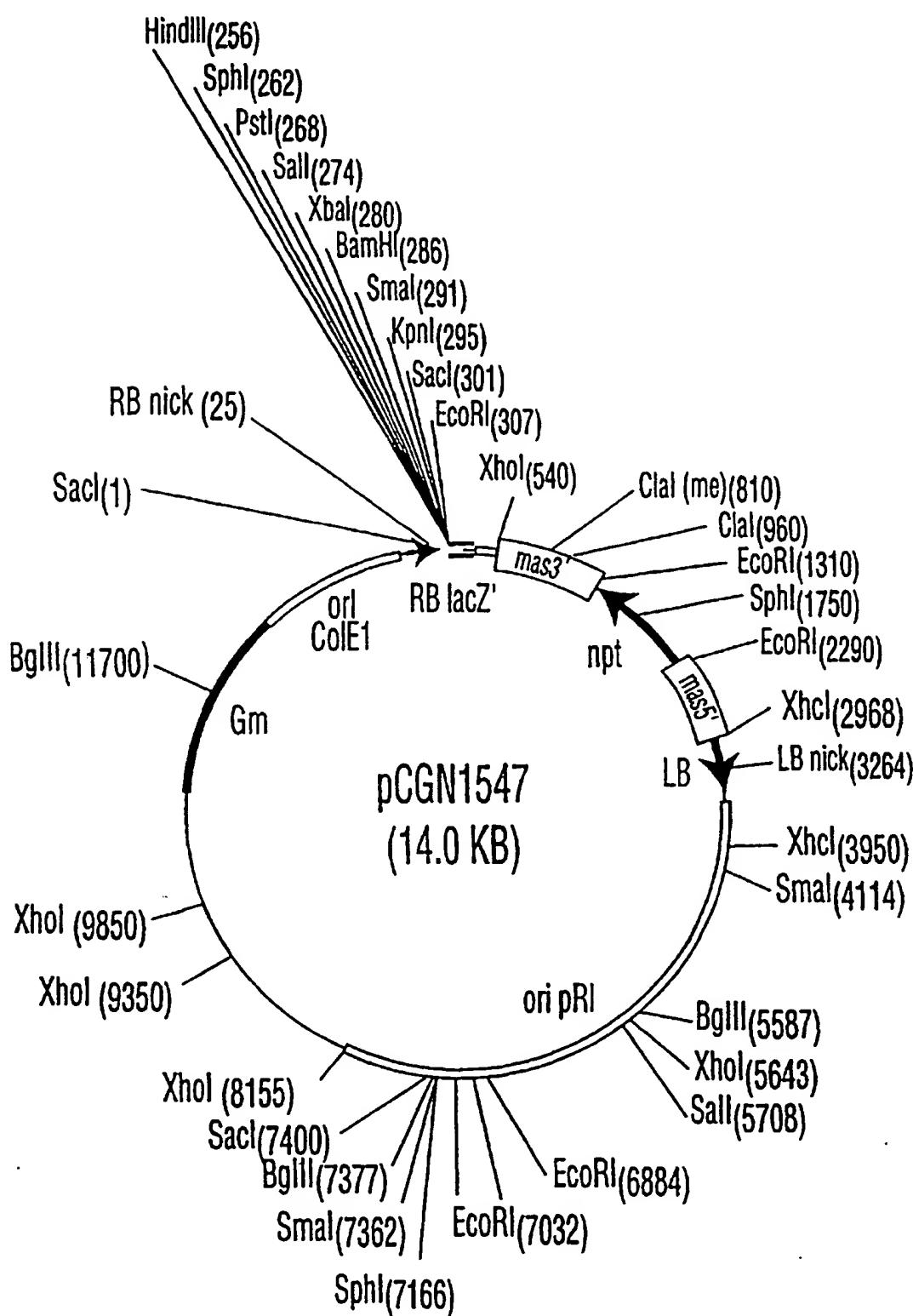


FIG. 8



Title: ROOT SPECIFIC, AND STRESS-INDUCED
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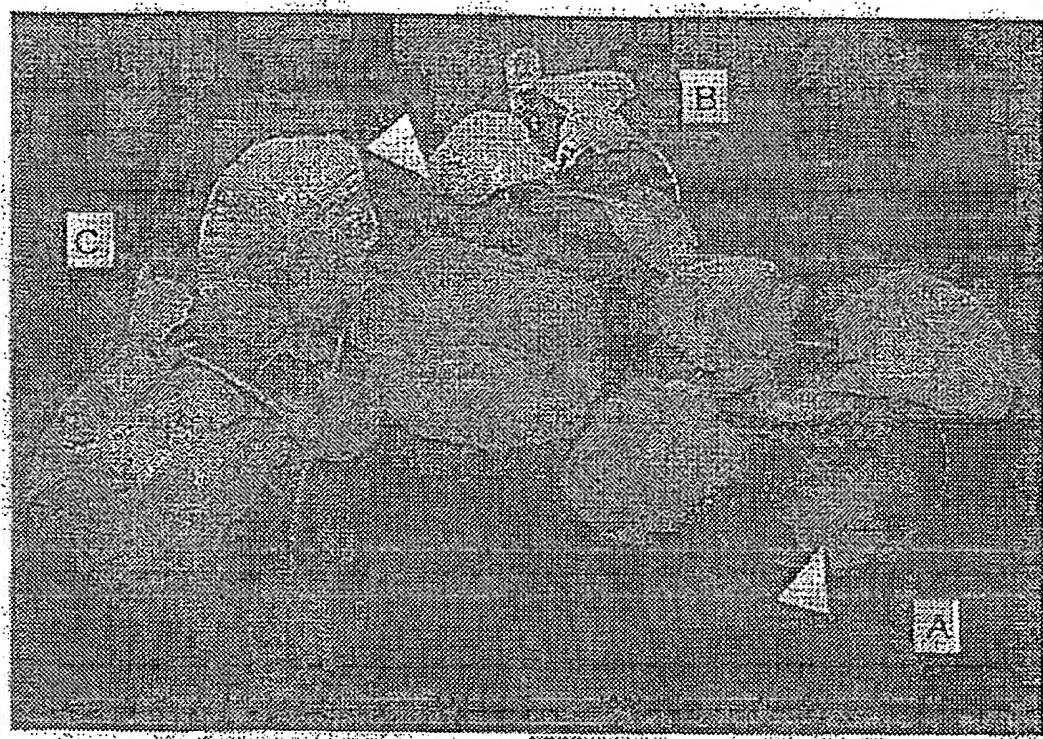


FIG. 9

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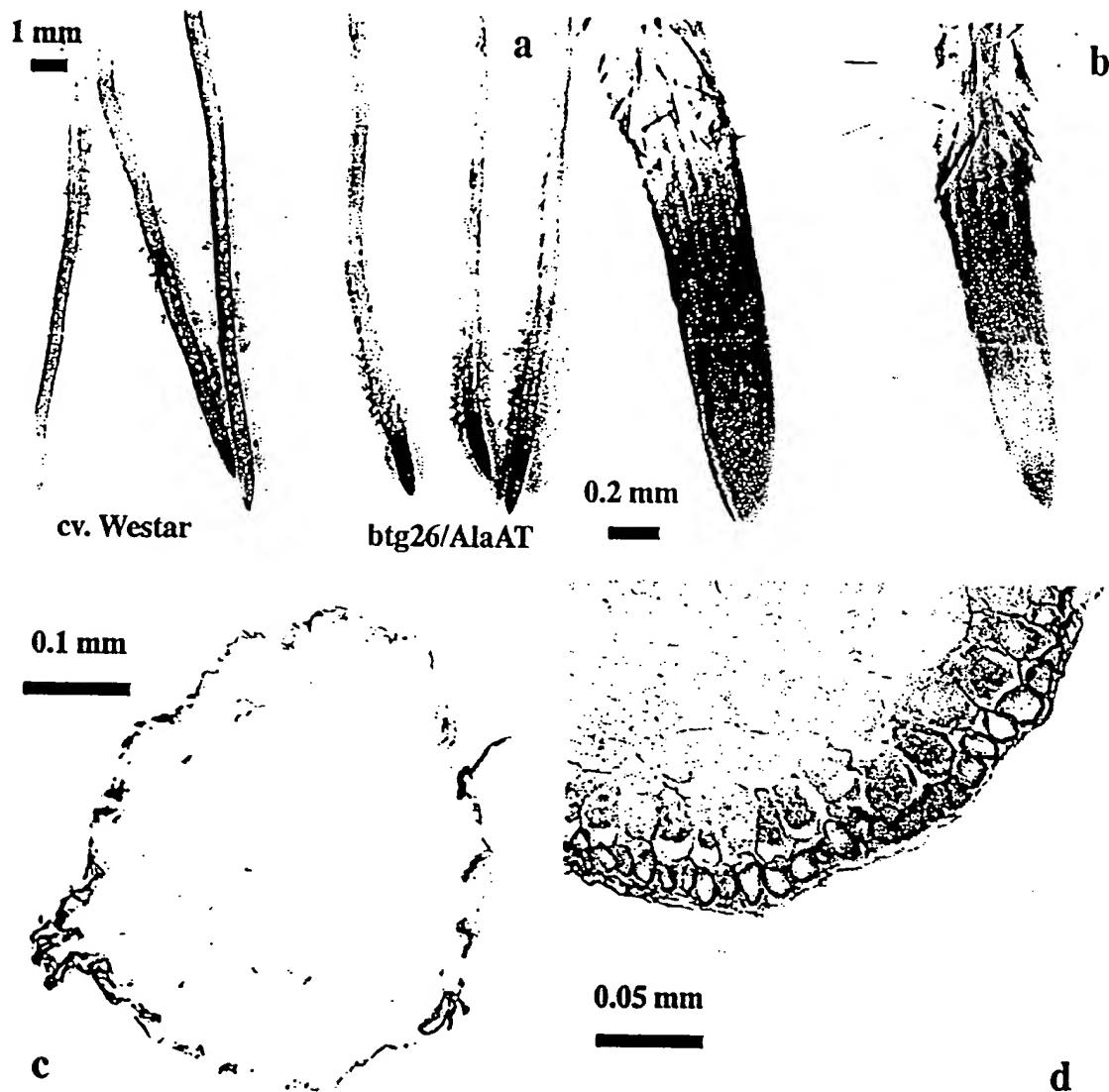
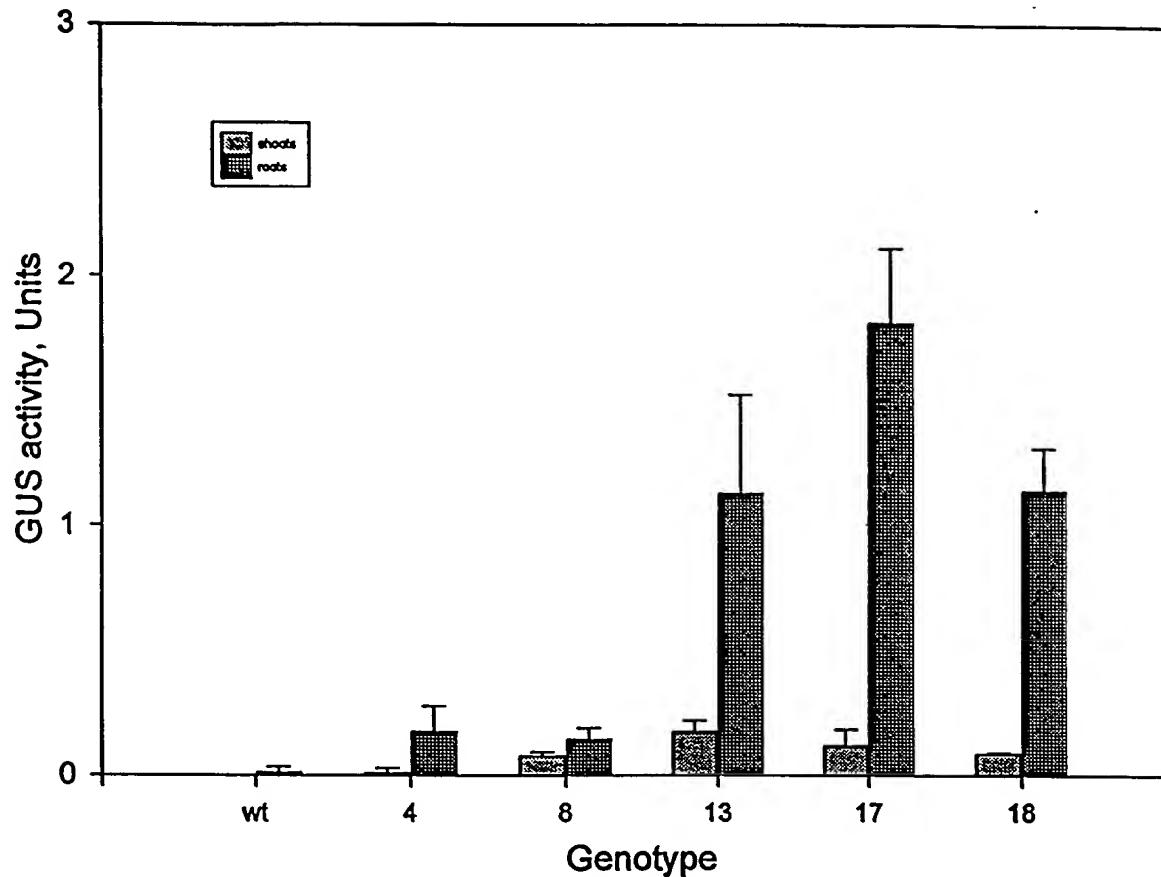


FIGURE 10



GUS activity in btg26/GUS transgenic lines



Root/shoot ratios:

btg26/GUS, line 4	-	19.5
btg26/GUS, line 8	-	1.9
btg26/GUS, line 13	-	6.5
btg26/GUS, line 17	-	15.7
btg26/GUS, line 18	-	13.2

FIGURE 11

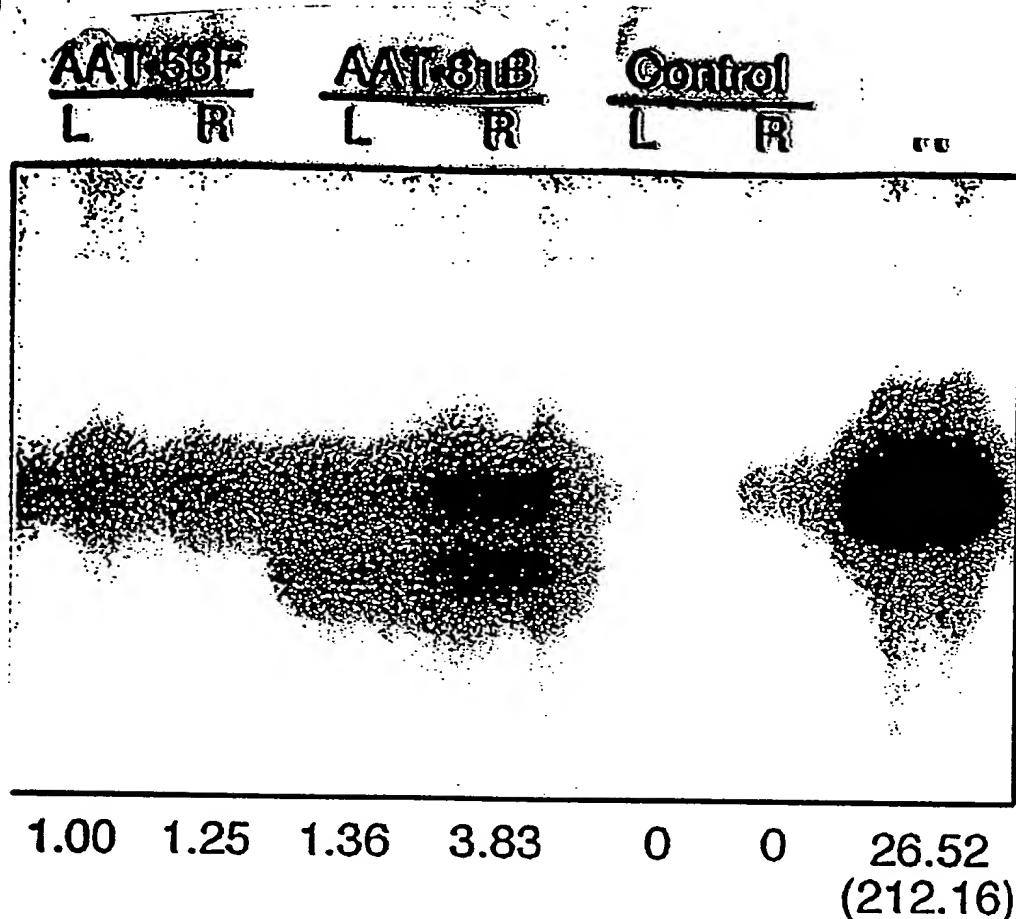


FIGURE 12

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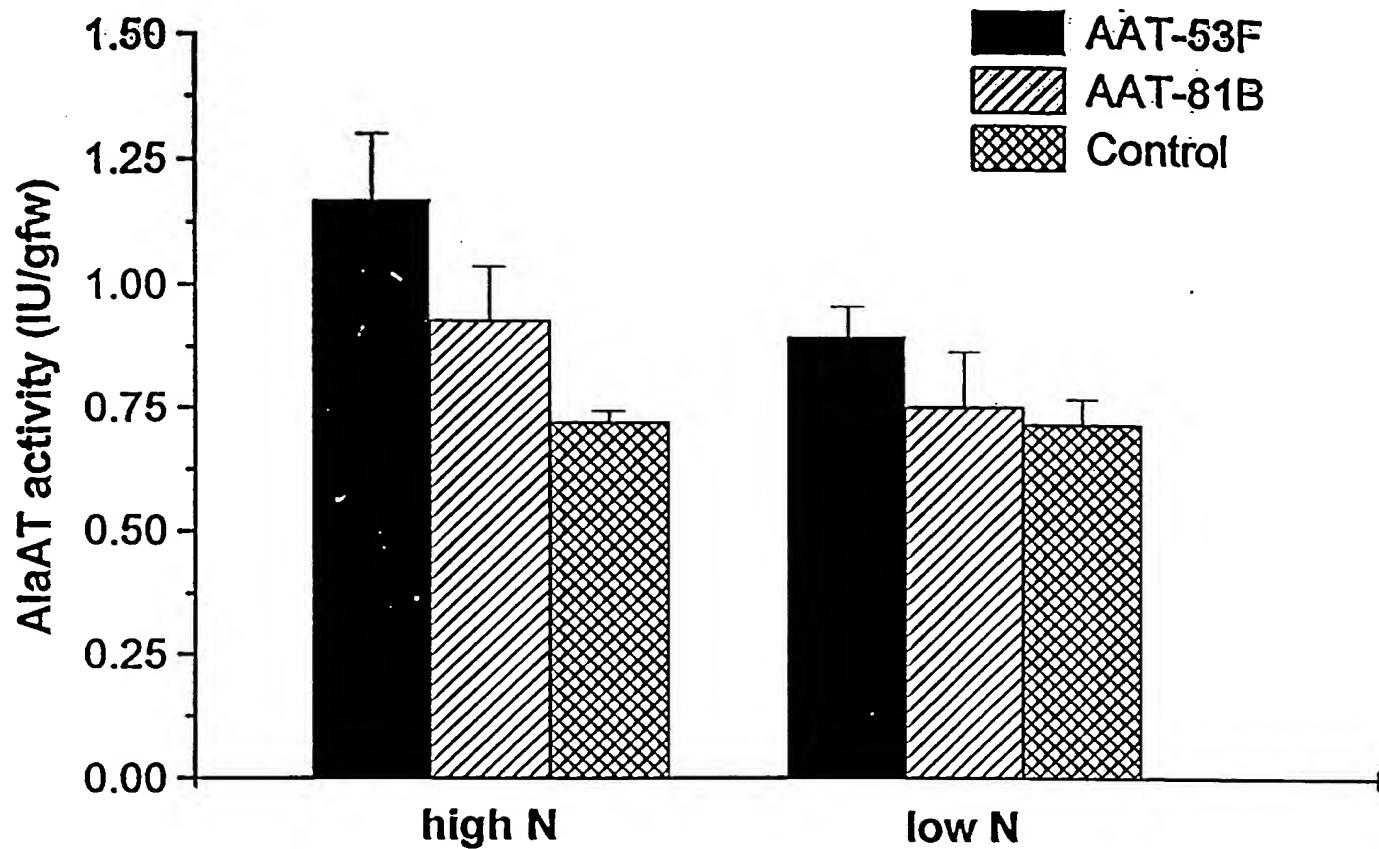
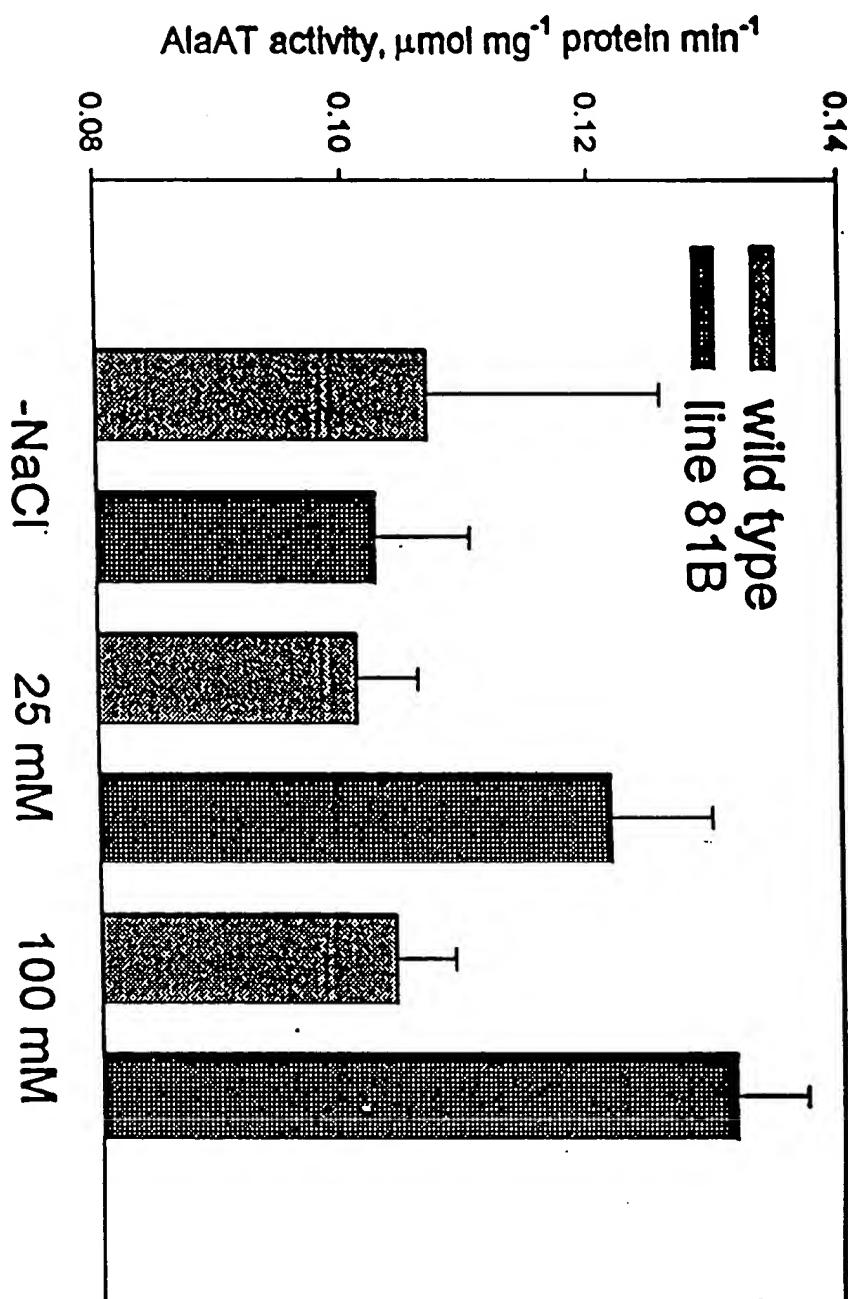


FIGURE 13



AlaAT activity in shoots of wild type cv. Westar and transgenic
bgl26/AlaAT line 81B, plants grown hydroponically on 0 mM nitrate
after 36 hours of salt treatment

Figure 14



AlaAT activity in roots of wild type, cv. Westar, and transgenic, *btg26/AlaAT* line 81B, plants grown hydroponically on 0.5 mM nitrate after 36 hours of salt treatment

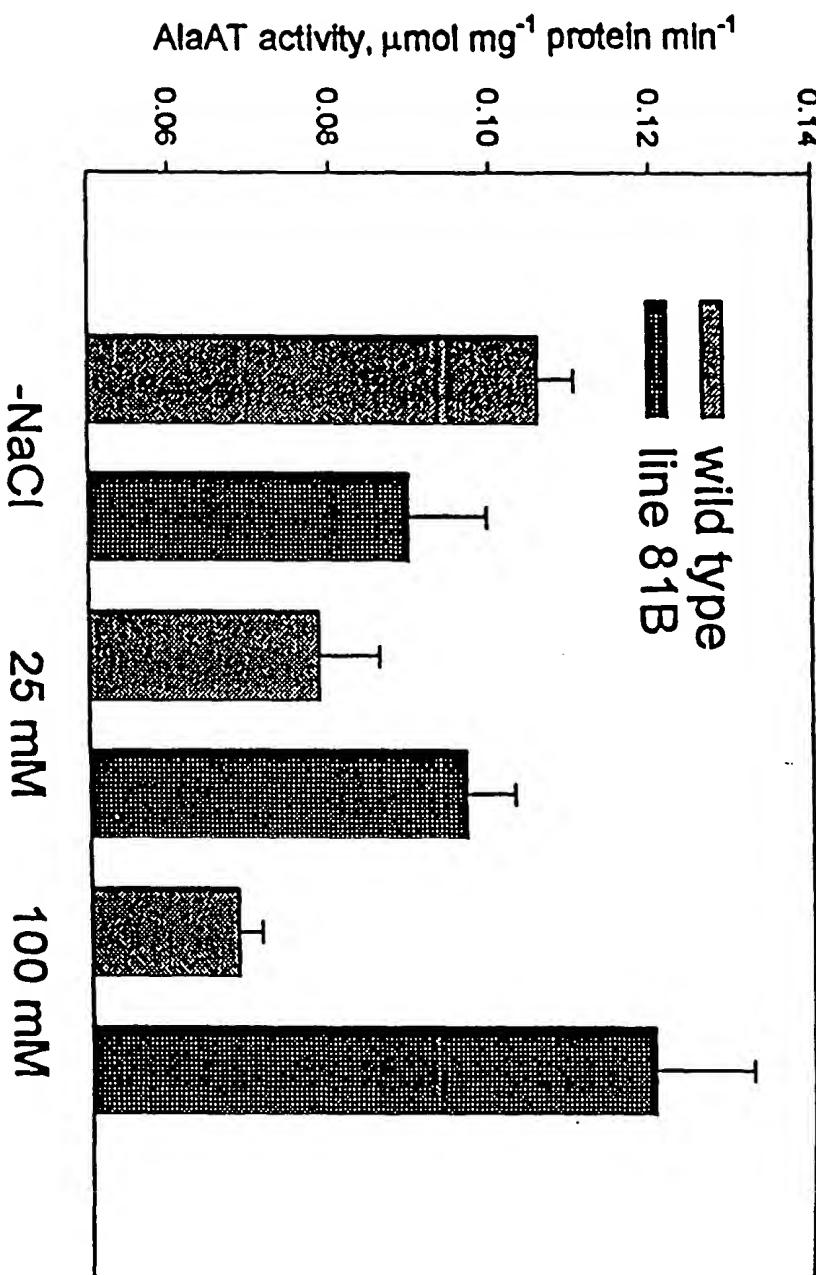
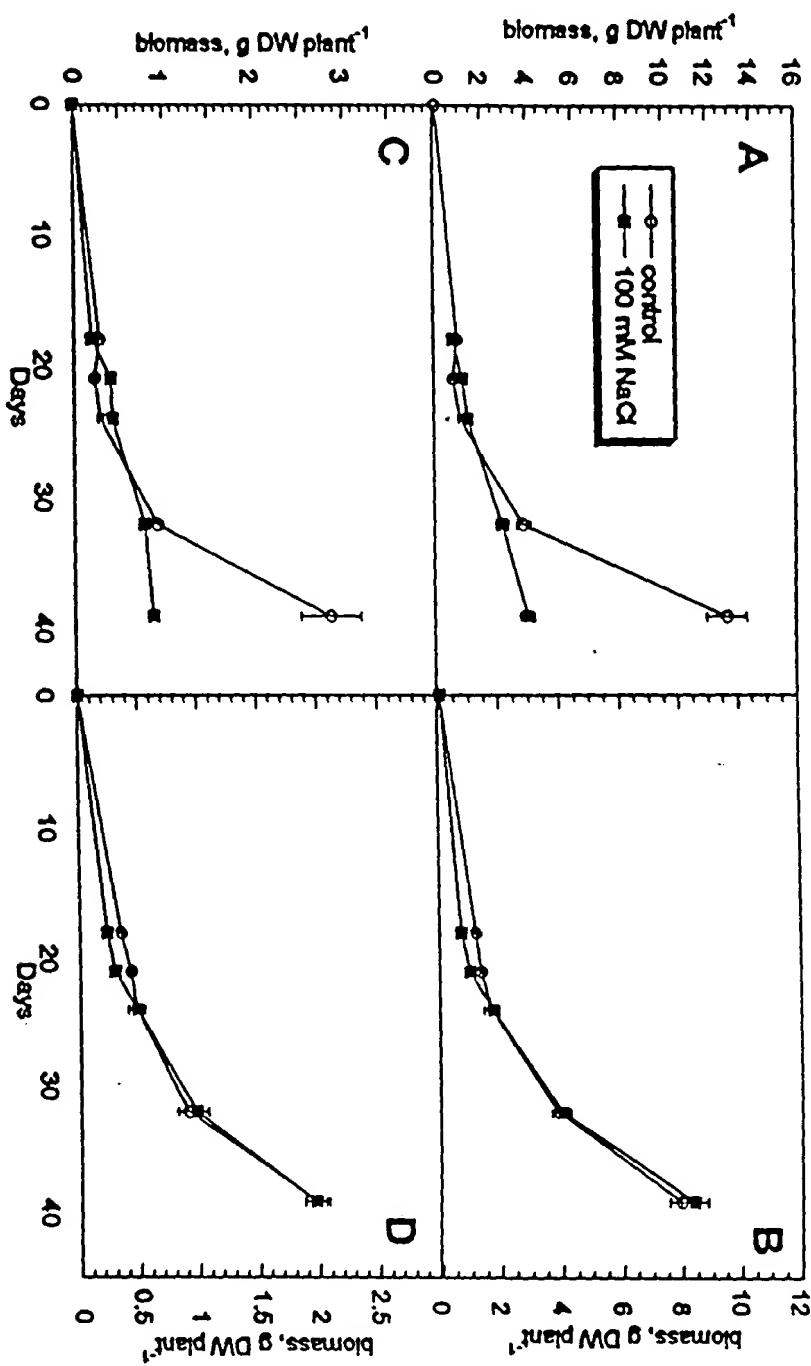


Figure 15



Effect of salinity on biomass accumulation of wild type, cv. Westar, and transgenic, *btg26/AlaAT*, line 81B, plants

Figure 16